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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/656,188	09/08/2003	Christian Kurt Bottger	116998	8413

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OLIFF & BERRIDGE, PLC
P.O. BOX 19928
ALEXANDRIA, VA 22320

EXAMINER	
CAMERON, ERMA C	
ART UNIT	**PAPER NUMBER**
1762	

DATE MAILED: 06/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/656,188	BOTTGER ET AL.	
	Examiner	Art Unit	
	Erma Cameron	1762	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) *18 and 19* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Claims 18-19 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 5/12/2005.

2. Applicant's election with traverse of Group I in the reply filed on 5/12/2005 is acknowledged. The traversal is on the ground(s) that there is no burden to search for 18-19 along with claims 1-17.. This is not found persuasive because the classification of 18-19 is not the same as for 1-17, and therefore the search is not the same.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 5-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a) Claim 5: it is not clear if more than on fluoroacrylate is required. The claim is to a mixture.

b) Claims 6 and 7: it is not clear what is meant by the...agent contains. Does this mean that the agent is the same thing as the antistatic agent or the lubricant, or that the water-repellent agent is a mixture of (water-repellent and lubricant) or (water-repellent and antistatic agent)?

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 3-4, 7-8 and 14 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by WO 89/06190.

'190 teaches applying a fluoroelastomer (16:28) in aqueous emulsion (20:2-17) to an aramid fiber that may be poly(phenylene terephthalamide) (8:14), which is then formed into for instance a plain woven fabric (15:3-15) and heat treated (28:35-29:17), to make a ballistic cloth. The emulsion may contain lubricant or other materials (22:8-17). The fluoroelastomer is inherently water-repellent.

'190 teaches that coating the fabric, rather than the fiber results in an inferior product ballistically (see example 3).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over WO 89/06190 taken in view of (Kwolek) 3671542.

'190 is applied here for the reasons given above.

'190 fails to teach that the aramid yarn is provided by a spinning process from a wash bath.

'542 teaches that poly (p-phenylene terephthalamide is prepared by a spinning process into a coagulating bath, followed by a wash bath and drying (see Example 1).

It would have been obvious to one of ordinary skill in the art to have employed a conventional process such as the one taught by '542 to make the aramid yarn of '190.

9. Claims 6, 9-13 and 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 89/06190.

'190 is applied here for the reasons given above.

'190 teaches that the coated fibers should have a "relatively minor proportion" of coating (10-30 volume %) (21:5-11). It appears that the coating level of '190 overlaps with that claimed by applicant.

'190 teaches that the coating is applied by a device depicted in figures 14 and 15 (see Example 1), which involves rollers. It would have been obvious to one of ordinary skill in the art to have substituted any conventional coating apparatus for the apparatus of '190 with the reasoned expectation of success.

'190 appears to teach that the coating is applied at RT, which would be encompassed by the 15-35 C claimed by applicant.

'190 teaches that after the coating is applied and the fabric formed, heat treatment of 124 C of 124 C is carried out (see Example 1). This T overlaps with applicant's claimed range.

'190 does not teach the drying time for the fiber, or the heat treatment time of 30-120 seconds, or the drying T of 130-210 C, but it would have been obvious to one of ordinary skill in the art to have optimized the drying and heating processes through no more than routine experimentation.

10. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over WO 89/06190 taken in view of WO 92/01108.

'190 is applied here for the reasons given above.

'190 fails to teach applying a fluoroacrylated to the aramid fiber.

'108 teaches that applying a fluorinated methacrylate (a homologue of an acrylated) to an aramid fiber improves "certain physical and chemical properties of the fiber" (page 1-2) such as hydrolytic resistance.

Jakob et al teaches that OLEOPHOBOL fluoropolymer, which is one of the fluoro acrylates used by applicant, is especially preferred to treat aramid fibers, resulting in a high degree of wet ballistics protection (see Abstract).

It would have been obvious to one of ordinary skill in the art to have used the fluorinated methacrylate of '108 or the OLEOPHOBOL of Jakob in the '190 process because of the teaching of each reference of the advantages of its particular treatment of aramid fiber.

Specification

11. The use of the trademarks such as OLEOPHOBOL and Twaron has been noted in this application. They should be capitalized wherever they appear and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erma Cameron whose telephone number is 571-272-1416. The examiner can normally be reached on 8:30-6:00, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on 571-272-1423. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Erma Cameron

ERMA CAMERON
PRIMARY EXAMINER
May 4, 2005

Erma Cameron
Primary Examiner
Art Unit 1762